

## REMARKS:

In this case, the Examiner has indicated that the following claims are pending in the case: 1-8, 16-22, 27, 35, and 36  
however, the preliminary amendment filed January 4, 2006 clearly shows that the following claims are pending in this case:  
1-8, **14**, 16-22, **27-28**, and 35-36, although the Applicants' remarks inadvertently indicated that claim 9 was also pending, but claim 9 was in fact cancelled with that amendment. Therefore, it is believed that the proper set of claims pending in this case includes the set indicated by the Examiner, and additionally, claims 14 and 28.

This application is a national stage application filed at 30 months from the PCT application parent. A written opinion of the International Searching Authority was mailed Feb 28, 2006 and a reply was mailed by the Applicant in May 30, 2006. The Examiner in this case has issued the restriction requirement and reiterated substantially the same arguments that were the basis of the same Examiners' written opinion to the same set of claims in the PCT application. The applicant traverses the requirement for restriction/election.

The basis for the argument presented by the Examiner in the PCT application was that the subject matter sought to be claimed in the PCT application lacked unity of invention, and is substantially the argument that the Examiner attempts to reiterate in this case. The applicant has previously provided an argument for unity of invention under the PCT phase, and it is believed that the burden is now on the USPTO to rebut the applicants' unity of invention arguments. The problem-solution approach is the standard for determining unity of invention under the PCT phase, and the Examiner is again reiterating this type of argument for attempting to re-establish a lack of unity of invention argument without replying to the applicants' rebuttal filed May 30, 2006.

The problem to be solved is the identification of sequences encoding additional novel insecticidal proteins, and in this case, the claimed sequences encoding insecticidal proteins identified are the solution to the problem. The claimed invention provides a solution to the problem. The sequences encode insecticidal proteins that are different from any other previously disclosed insecticidal toxin. The sequences encode insecticidal proteins that can be used alone or together to effectuate control of coleopteran species, particularly when modified for expression of the encoded insecticidal proteins in plants. The sequences are novel and non-obvious. These sequences are novel because they are not anywhere present in the prior art. The sequences each encode an insecticidal protein that is secreted into the extracellular space from the *Bacillus thuringiensis* species from which each sequence has been identified. Each sequence is non-obvious because no combination of art teaches or suggests any of the

sequences. The sequences are disclosed to be homologues and/or orthologues of each other. The sequences are thus similar to each other and would be expected by the skilled artisan to hybridize to each other under a variety of hybridization conditions. The proteins encoded from these sequences are disclosed as being highly similar to each other in structure and in function. The sequences and the proteins encoded from these sequences can each be used alone or in combinations with each other to combat coleopteran insect infestations, particularly infestations of plants.

Under PCT Rule 13.1, unity of invention is fulfilled when there is a technical relationship among the several individual inventions involving one or more of the same special technical features. A special technical feature is defined under PCT Rule 13.2 as technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. In this case, as specified above in the reply to the written opinion, each of the different sequences contribute a special technical feature corresponding to a novel and non-obvious solution to the problem presented. Each sequence encodes a novel, non-obvious insecticidal protein and each sequence hybridizes to the other sequences under specific or stringent hybridization conditions (as defined in the specification), but would not hybridize to other unrelated sequences under these conditions. The Examiner alleges that these sequences would hybridize to a naturally occurring tIC851 nucleotide sequence derived from *Bacillus thuringiensis* that encodes a different insecticidal protein that is not related to any of the presently claimed sequences. The applicant finds no conditions specified in the application that would lead to hybridization of any of the claimed sequences to the tIC851 sequence. The Examiner is alleging that the tIC851 sequence would hybridize to the sequences claimed in the application because the claimed sequences also have been provided with names corresponding to an internal corporate nomenclature used for naming new insecticidal proteins; i.e., tIC corresponding to Toxin for Insect Control. No relationship has been implied by the applicant, and cannot be inferred by the Examiner, between different proteins or sequences encoding such proteins merely because they have been provided with name designations using this nomenclature. The Examiner's argument that the specification teaches "specific hybridization conditions" under which the present sequences may hybridize to tIC851 is not applicable because, upon entry of the amendments to the claims accompanying this reply, the claims no longer recite the limitation of "specific hybridization conditions".

On the basis of the remarks set forth above, unity of invention exists because these sequences exhibit one or more special technical features as set forth above, and so it is believed that the sequences set forth in the claims should be examined together.

Applicant provisionally elects Group III, SEQ ID NO:5, corresponding to a nucleotide sequence encoding TIC1201. All claims pending in the case encompass the elected invention.

The requirement to comply with the provisions of Examiners' paragraph No. 4 are believed to be stayed pending the outcome of litigation.

It is believed that the remarks above are fully compliant with the requirement for restriction/election. It is respectfully requested that the Examiner contact the undersigned attorney if minor issues remain that need to be resolved in order to bring the claims into condition for an early allowance.

Respectfully submitted,

/ Timothy K. Ball, USPTO Reg. No. 42,287/

---

Timothy K. Ball, Ph.D., Esq.  
Reg. No. 42,287  
800 North Lindbergh Boulevard  
St. Louis, Missouri 63167  
(314) 694-5802  
(314) 694-5311 (fax)